Distributed Systems

COMP90015 2017 Semester 1
Tutorial 08

Questions for today

1. What is a domain transition and how many domain transitions are required for an RPC/RMI call from one process to another on the same host?
2. Compare the worker pool multi-threading architecture with the thread-per-request architecture.
3. What is process migration and explain two circumstances that can prohibit or make it difficult for process migration to take place?
4. Why is shared memory faster than message passing when communicating between processes on the same host? State a reason why shared memory is not preferable when communicating between processes on the same host.

Questions for today

5. What is the difference between a static process location policy and a dynamic process location policy?
6. In the context of load-sharing systems, explain each of the centralized, hierarchical and decentralized designs.
7. What is the difference between sender-initiated load-sharing and receiver-initiated load-sharing? Under what circumstances is sender-initiated more efficient than receiver-initiated?
8. Give two reasons why a monolithic kernel is sometimes more efficient than a micro kernel. Give three reasons why a micro kernel is preferable to a monolithic kernel.